



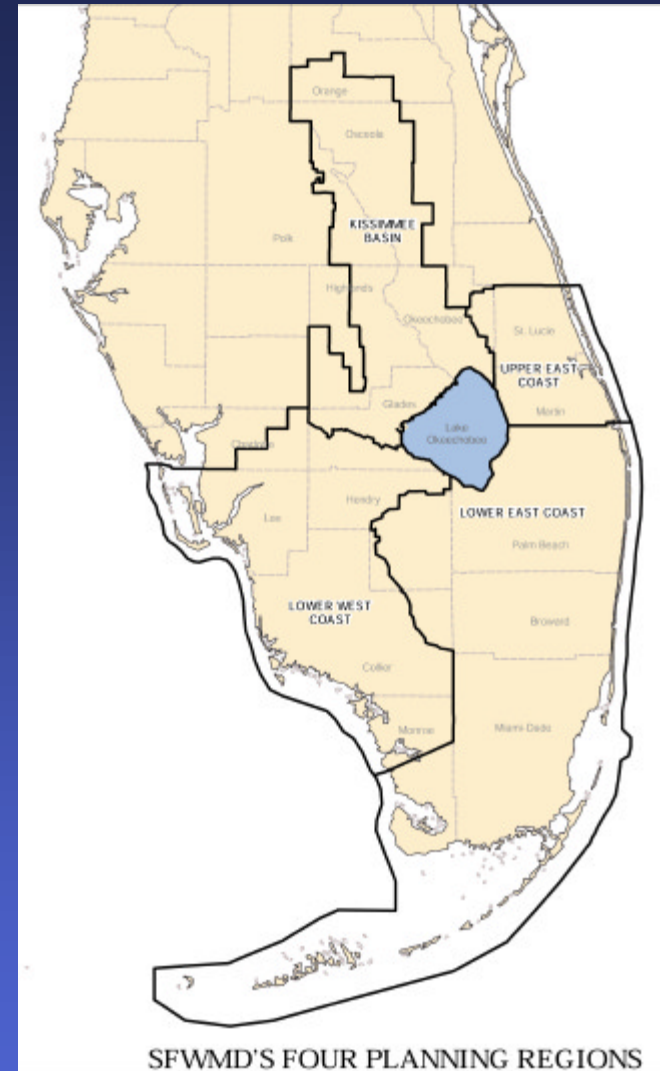
Kissimmee Basin Water Supply Plan

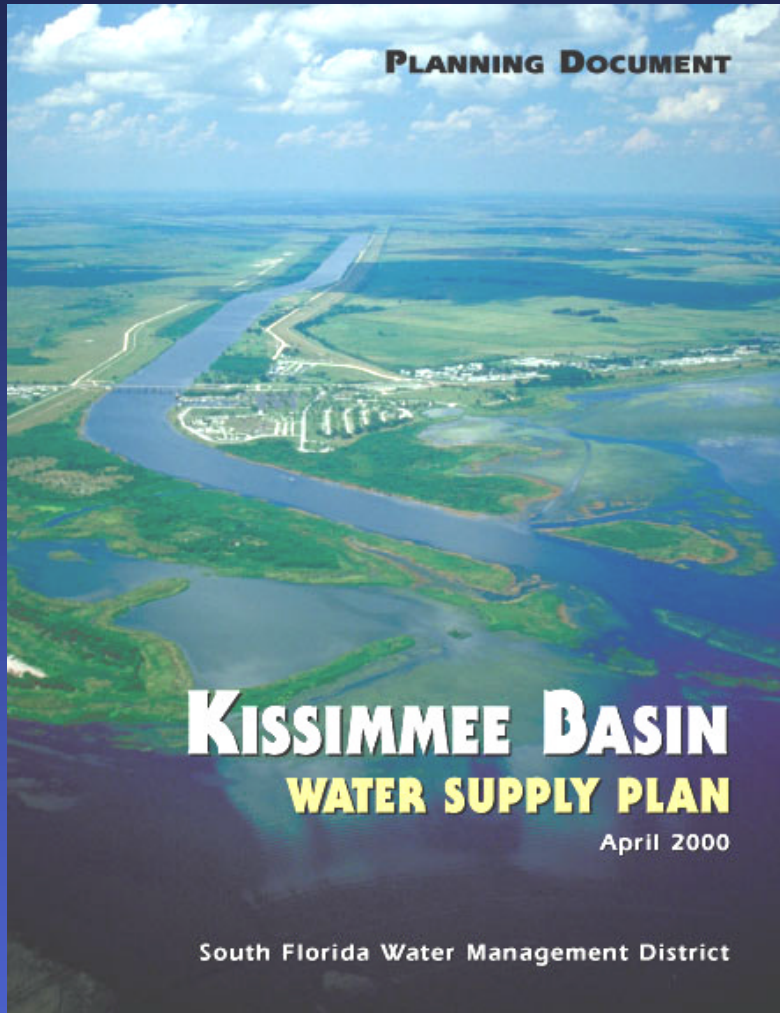
*Presented by:
Chris Sweazy, P.G.*



The Kissimmee Basin Water Supply Plan

- WMP for areas north of Lake Okeechobee
- 60% increase in use (250 mgd)
 - 1995 pop - 363,000
 - 2020 pop - 687,000





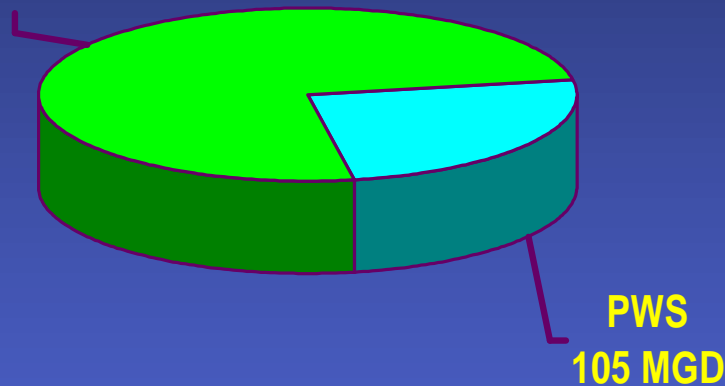
Kissimmee Basin Water Supply Plan

- ♦ Completed April, 2000
- ♦ Prepared through a public participation process
- ♦ 3 Volume Set
 - ♦ Planning, Support and Appendices
- ♦ Update Scheduled for April, 2005
- ♦ www.sfwmd.gov/org/pld/proj/wsp/

Projected Water Use

1995

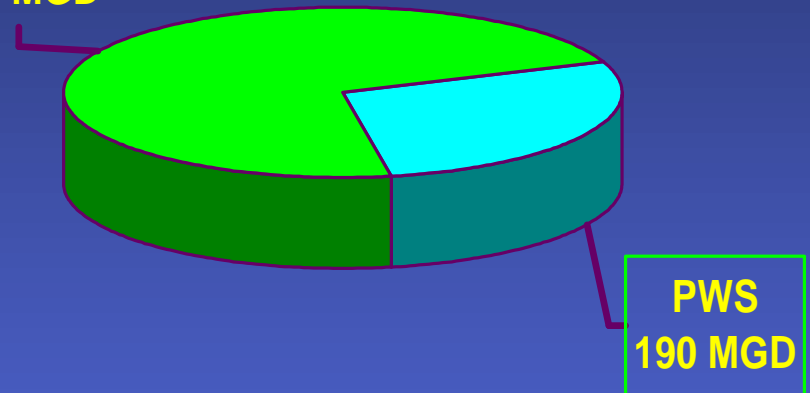
Agriculture
310 MGD



415 mgd

2020

Agriculture
475 MGD



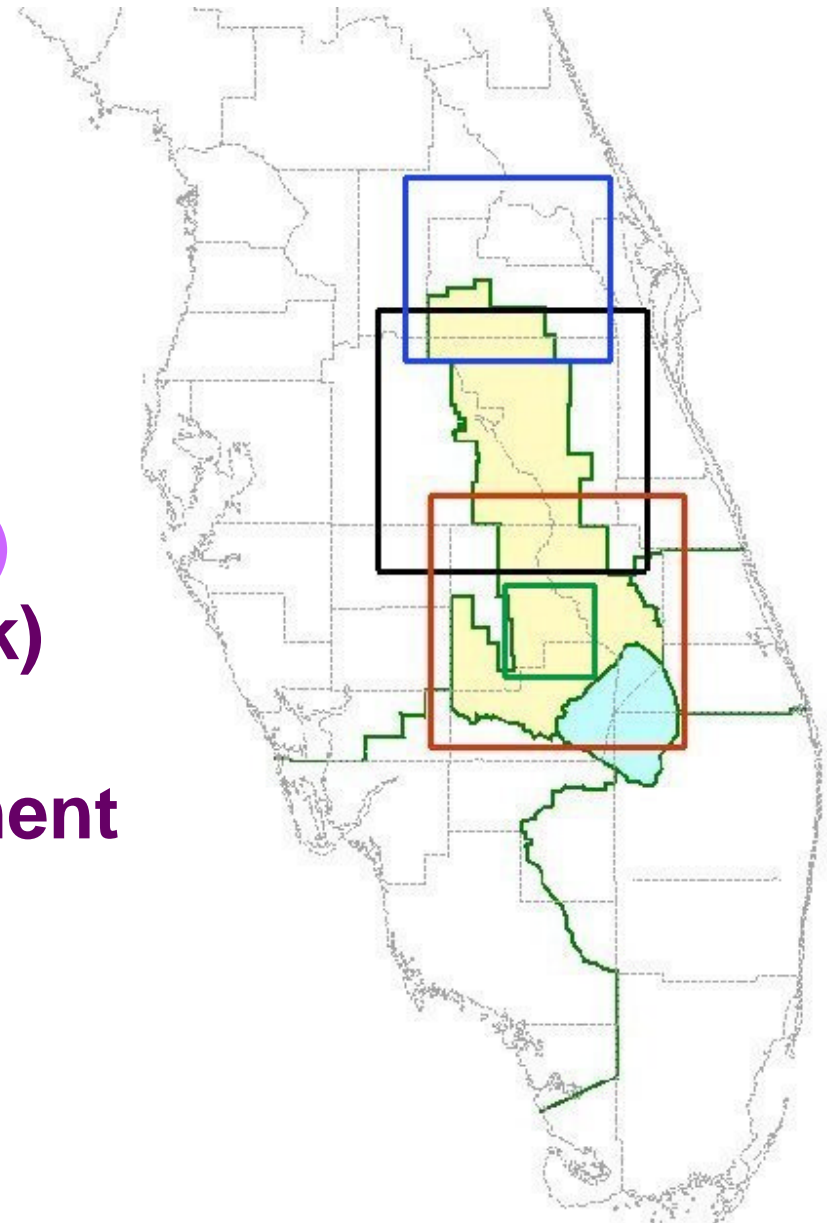
PWS
190 MGD

665 mgd

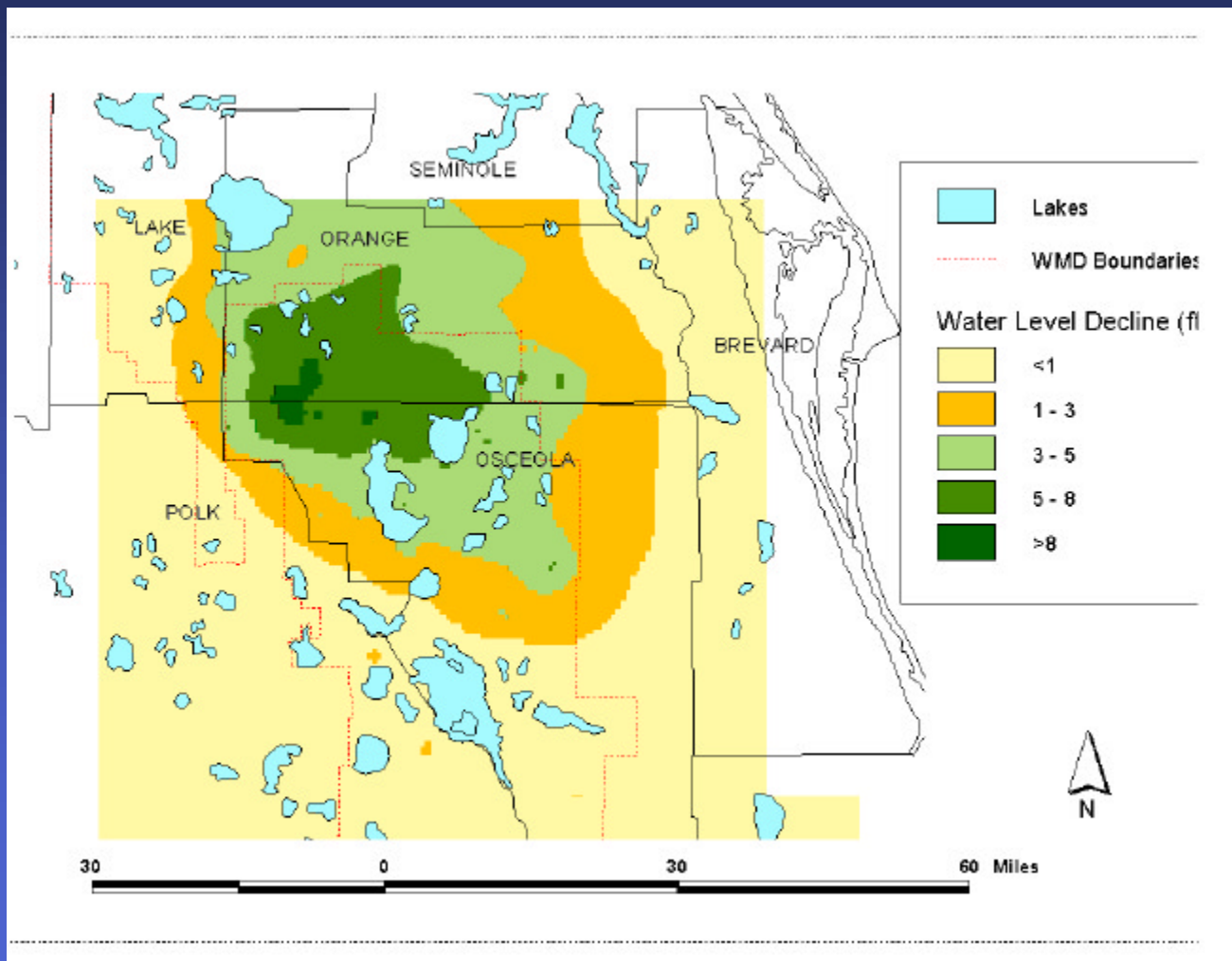
60% Increase in Overall Use

Model Study Areas

USGS Metro Model (blue)
Osceola Co. Model (black)
GOH Model (red)
Lake Istokpoga Assessment
(green)



Central Florida Potentiometric Head Change in the Floridan Aquifer



1995 to
2020(1-10)

Summary of Ground Water Analysis Results

■ Natural Systems

- Wetlands - High risk areas identified for SW Orange and NW Osceola Counties
- Lake Levels - No projected impacts to lake levels along Lake Wales Ridge or KB lakes
- Spring Discharges - MFL's for 4 springs project to be violated

■ Water Quality

- Projected movement into Cocoa Wellfield in east Orange County

■ Sinkhole Formation

- High risk areas identified in SW Orange and NW Osceola Counties

Summary of Central Florida's Water Future

The Floridan aquifer system, historically used as a primary water source, will likely not meet all the future demands projected for central Florida. As a result, private and public water suppliers need to begin to develop alternative water supply sources within the five and ten year planning horizons in order to provide uninterrupted service to their customers.



sfwmd.gov

Water Resource Options

- Limited continued use of Floridan aquifer
- Water conservation
- Reclaimed water
- Surface water including lakes & reservoirs
- Storm water and storm water recharge
- Saline/brackish water use
- Indirect Potable Reuse

* Central Florida

Kissimmee Basin Water Supply Plan

Recommended Actions

- **Research**
 - Hydrologic Investigations
 - Resource Protection Criteria
 - Model Development
- **Alternative Water Supply Development**
 - Investigate Additional Floridan Use
 - Conservation
 - Reclaimed Water Use
 - Stormwater Reuse Planning
 - Surface Water Availability

Kissimmee Basin Water Supply Plan

Hydrologic Investigations

- **Goal:** Further define the availability of Floridan groundwater
 - Floridan Aquifer Exploration
 - Shallow- Floridan Connection Study
 - Lake Monitoring Network
 - Identification of wetland and sinkhole problem areas
 - Update previous ground water models

Kissimmee Basin Water Supply Plan

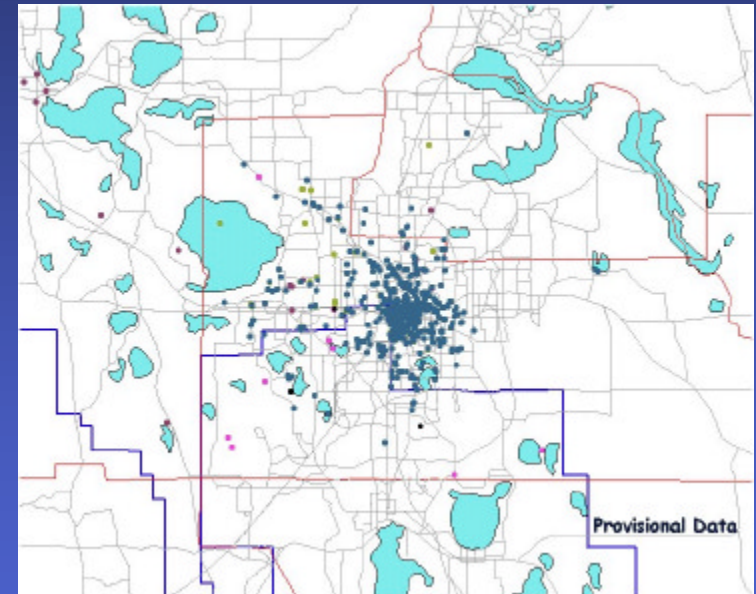
Reclaimed Water Use

- **Goal:** Encourage the use of reclaimed water
 - AWS Grant program
 - Reclaimed water master planning
 - Indirect Potable Reuse Pilot Study
 - Water use permitting

Kissimmee Basin Water Supply Plan

Stormwater Reuse Plan

- **Goal:** Enhance aquifer recharge using stormwater
 - Identification of stormwater availability and areas in need of flood relief
 - Drainage well pilot study
 - Identification of stormwater holding areas for treatment and recharge



Kissimmee Basin Water Supply Plan

Surface Water Availability

- **Goal:** Determine the availability of surface water for water supply.
 - Shingle, Boggy and Reedy Creeks
 - Upper Chain of Lakes
 - Development of MFL's for Lakes

Water Conservation Efforts

- Public Education
- Bus Wrapping
- Mobil Irrigation Labs
- Water Shortage Restrictions
- Ordinance Development



Kissimmee Planning Document

- **1. Introduction**
- **2. Water Supply Planning Process**
- **3. Planning Area Description**
- **4. Analysis and Issue Identification**
- **5. Water Source Options and Solution Development**
- **6. Recommendations**

Kissimmee Support Document

- **1. Introduction**
- **2. Planning Area Description**
- **3. Water Resources and System Overview**
- **4. Natural Resources**
- **5. Resource Regulation**
- **6. Demand Estimates and Projections**
- **7. Water Conservation**
- **8. Water Source Option**
- **9. Water Quality and Treatment**
- **10. Analytical Tools and Model Assumptions**